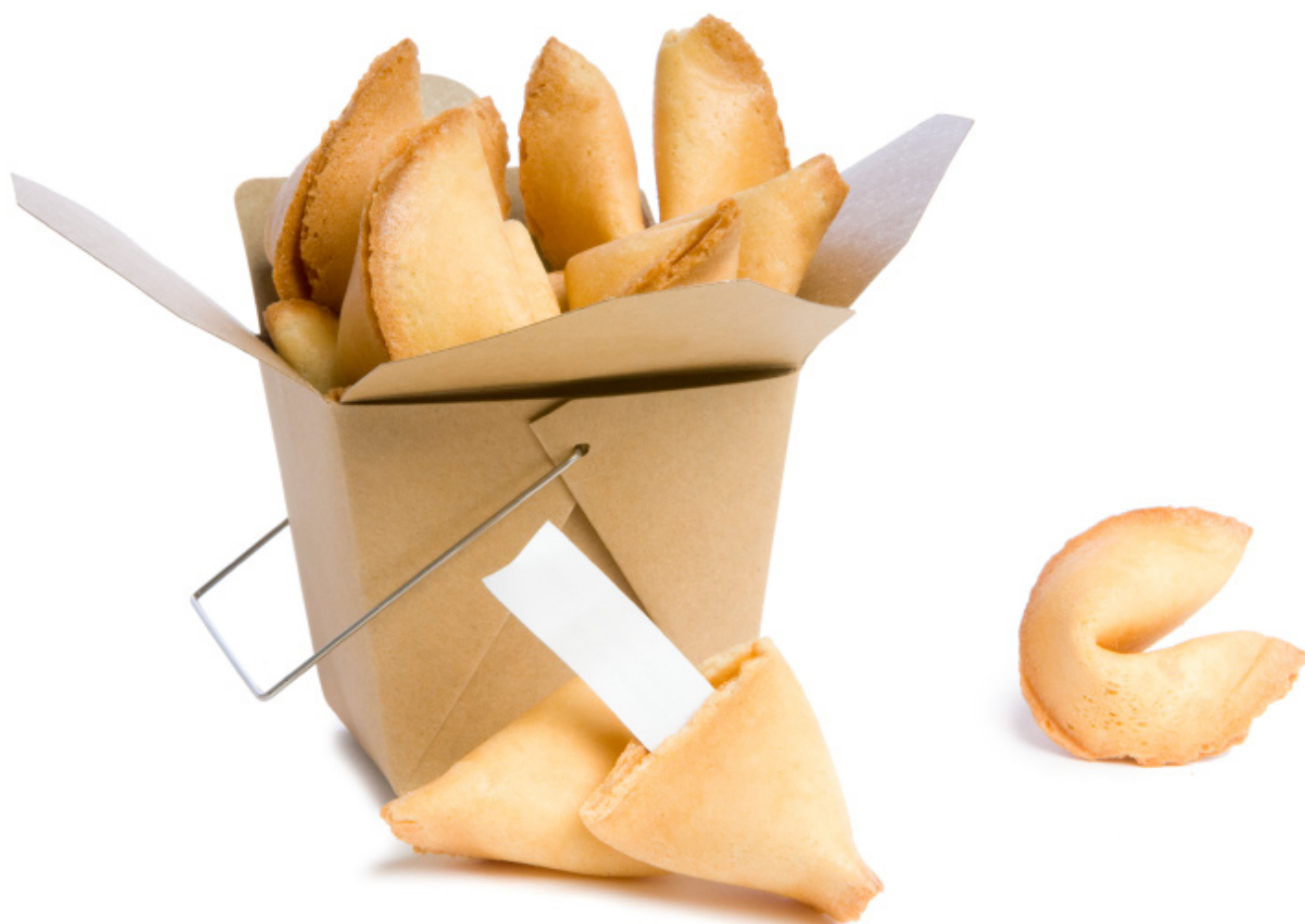


## 2009 Industry Outlook: Telecom Challenging Times, Emerging Opportunities





# Telecom



It's a brave new world for the U.S. telecom industry, which is using the decline of traditional wireline voice communications as the impetus to radically reinvent itself. Telecommunications in general has been a longstanding, profitable and successful industry with roots extending back nearly 150 years. But U.S. telecom has reached the point where its signature offering, wireline voice, peaked some time ago and is now in steady decline due to a lack of product innovation, high network maintenance costs, generational divides, and low (and ever-decreasing) margins.

Wireline's demise is being hastened by the phenomenal growth of wireless, which – despite irritating connectivity reliability issues that are still being resolved – is rapidly becoming consumers' communications technology of choice. After all, why use an old-fashioned wireline phone when your snazzy new wireless model offers on-the-go voice, text, Internet, video, music and a directory with all of your important contacts?

## Data-driven wireless

Yet even traditional wireless is beginning to show signs of graying. At 80 percent penetration in the United States, carriers need to focus more on managing churn than adding new voice subscribers. However, since the larger carriers already have reduced monthly churn from three to one percent, they can't go much lower.

It's becoming increasingly evident that the wireless growth engine is data – text messaging, instant messaging (IM), video, games, social networking, and more. Data applications are exciting and popular among highly coveted, younger subscribers, but rising data ARPU (average revenue per user) has not translated into rising total ARPU. Wireless ARPU in the U.S. currently averages \$50 per month. Data's percentage of that has grown from zero to 20 percent (or \$10 per month) but total wireless ARPU is remaining relatively flat. If voice revenues continue to decline, this presents a challenge for wireless companies in 2009: Are they bringing data services online that people value and will purchase at a fast-enough rate to offset any decline in voice revenue? Carriers need to push the technology envelope to translate data ARPU into increased total ARPU. But therein lays another challenge: rapid technology evolution is costly and spectrum is scarce. Just a year ago, the industry was talking about 3G technology; now plans for 4G are under way, as evidenced by the February 2008 spectrum auctions and the pending combination of Clearwire and Sprint's Zhome division.

The emergence of non-traditional competitors in the telecom space also indicates that wireless data is the future. Google is making the source code for its Android mobile platform freely available, banking that an open-architecture approach will spur development of a wide variety of applications, as well as cheaper and faster phones. Clearwire's WiMax is pushing wireless data as its core service and Apple's iPhone is redefining the handset, particularly in the area of video consumption. Wireless carriers must remain alert to both threats and opportunities presented by these and other market entrants.

### Advanced services and equipment

Wireless won't be the only focus for telecom carriers in 2009. Major players are expected to continue their move into media, competing with cable companies for the coveted subscriber "triple play" of telephony, broadband and media services. The goal is to bundle multiple communication services to increase subscriber "stickiness." However, offerings to date have been disappointing in that the bundled services are simply three or four disparate services sold as a group; while they are complementary, they are not interoperable. Bundling today is a way for consumers to ask, "What's my discount if I buy more pieces?" rather than saying, "I have to have all of these services because I need them to improve my overall communications experience." Think about having the ability to watch a movie on a mobile device and converting it over to a 42-inch flat-screen television. It can't be accomplished unless the carrier is offering a number of services that interact, not just operate in parallel.

On the equipment side, the nation's lingering economic woes may slow the sale of wireless handsets in 2009 unless carriers offer deeper subscriber discounts. The paradox is that the new "smart phones" are much more than phones; they are digital cameras, GPS devices, MP3 players and more. These feature-rich devices provide amazing new subscriber capabilities but they also challenge carriers to question what they are subsidizing, since carrier revenue does not necessarily benefit from some of these advanced features. However, carriers will likely continue to invest in increasing service capabilities as they move toward a data-dominated market. In fact, the top telecom carriers are entering the new year with plenty of cash-in-hand to take advantage of market opportunities emerging from the Internet's evolution and the growing consumer demand for communications services that add value to how they work, play and live. Second-tier carriers, in contrast, may need to pull back the reins on how quickly they introduce new technologies and services into the marketplace, but if they stop innovating they will lose market share.

### Historic Inflection Point?

As difficult as 2009 may prove to be, the telecom sector could look back on it as one of those historic inflection points that defined the future of the industry – a future that is data- and services-driven, not voice-based. This shift will require telecom companies to transform their strategies and operations to support and leverage advances such as:

- **The move from wireline voice to video communication.** Sophisticated telepresence and holographic communication technologies will provide the ability for carriers to offer one-to-many or many-to-many video communication across all devices – phones, TVs and computers. Video communication is cost- and time-effective and consistent with greening initiatives because it reduces the need for in-person meetings. It also offers wireline operators a way to transition to a revenue-rich future. One caveat: Video communication is expected to drive bandwidth consumption to new levels, straining existing capacity; carriers will need to continually seek ways to "fatten" the transmission pipe.
- **Media-driven entertainment.** Telecom companies are expected to play a major role in the development and dissemination of next-generation entertainment. Digital media is moving to the Internet, albeit slowly. This migration represents a unique way to connect content creators to consumers in a customizable fashion. In addition, the entertainment model is changing from a two-tiered model (content creator/content retailer) to a three-tiered model (content creator/distribution warehouse/content retailer model). The opportunity for telcos? As stated above, video takes a tremendous amount of bandwidth: Digitizing just one percent of existing content will add 11+ Exabytes in traffic. Networks will have to work together to handle the huge volume of traffic, which increases the value proposition of telecom companies that can provide adequate bandwidth.
- **Connected everything.** 2008's global market collapse emphasized people's need to be connected with everything, everywhere, all the time. Wireless communications' transformational capabilities will enable

<sup>1</sup> "Bharti Airtel crosses 75 mn subscriber base," The Economic Times, August 17, 2008, [http://economictimes.indiatimes.com/News/News\\_By\\_Industry/Telecom/Bharti\\_Airtel\\_crosses\\_75\\_mn\\_subscriber\\_base/articleshow/3373614.cms](http://economictimes.indiatimes.com/News/News_By_Industry/Telecom/Bharti_Airtel_crosses_75_mn_subscriber_base/articleshow/3373614.cms)

an expanded, connected world and spawn countless applications to support smart meters (on the street and in the home), machines as subscribers (a potential market of 300 billion machines versus three billion cellular phones!), presence advertising and couponing, mobile banking, investing and payments, and mobilized medicine/patient self-care. Savvy telecom companies will be looking for ways to partner with application providers so that both benefit.

- **Expanding global footprint.** More and more U.S. telecom carriers will be looking at opportunities to expand their global footprint. Markets such as India, Africa and South America offer tremendous upside potential for U.S. carriers, whether through direct ownership, partnerships or joint ventures. As part of this expansion, U.S. companies will need to rethink their product offerings and pricing structures. Case in point: India's citizens don't need an iPhone, they just need to make a phone call. Bharti Airtel, India's largest cellular service provider with more than 75 million subscribers as of August 2008,<sup>1</sup> recognized and is successfully addressing this need. The company is adding 12 million subscribers per month at an ARPU of \$8-\$9 per month – and realizing considerable revenue. Another example: In Africa, a village buys a phone, not an individual. Nokia is selling phones for under \$30 with a feature that allows a carrier to track and split the bill for multiple subscribers using one phone. While this feature has limited utility in the U.S., it is extremely useful for carriers targeting the African market.

### Calling the future

Some of the world's brightest people work in telecommunications companies. For many years, they focused all of their considerable intelligence on their networks and existing business. Today, however, telecom companies recognize that "the times, they are a'changing" – and that the business landscape in which they operate will be radically different 10-15 years from now. Fortunately, these companies also recognize that this new landscape can be an exciting, profitable one if they prepare now to take advantage of its many opportunities.

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